Detail Geophysical Surveys

BINE #1 to 12 Claims (BINE GROUP)

South Salmo River Area Near Nelway, British Columbia Nelson Mining Division 82F/3E and 82F/3W Lat. 49° 02' N Long. 117° 14'W

Owned by

W. Arthur Hall and E.R. Rockel

Operator and Consultant Interpretex Resources Ltd. Calgary and Vancouver Report Prepared by

E.R. Rockel, B.Sc., P.Geoph. (Alberta)

GEOLOGICAL BRANCH ASSESSMENT REPORT

### TABLE OF CONTENTS

1.	SUMMARY 1	
2.	INTRODUCTION 2	
3.	MINERAL CLAIMS 3	
4.	GEOLOGY AND MINERALIZATION 4	
5.	SURVEY SPECIFICATIONS 5	
	5.1 Survey Parameters 5	
	5.2 Equipment Parameters 5	
6.	DATA 6	
	6.1 Calculations 6	
	6.2 Presentation 6	
7.	INTERPRETATION	
	7.1 Discussion of Results 7	
	7.2 Conclusions 8	
8.	RECOMMENDATIONS	
	REFERENCES	
	CERTIFICATE	

## LIST OF FIGURES

Figure #1 - Index Map	Following Page 2
Figure #2 - Vertical Loop EM Survey	Rear Pocket
Figure #3 - Total Field Magnetic Survey	Rear Pocket

# APPENDICES

Appendix I - Geophysical Data Sheets Appendix II - Instrument Specifications Appendix III- Statement of Expenditures

### 1. SUMMARY

A strong conductive feature of moderate to high conductivity was found to be near surface and dipping northerly. An increase in magnetic activity north of the conductor may indicate a rock change. Quartz in fractures within shale may indicate quartz stockwork in the area. The conductor may represent contact mineralization, possibly associated with intrusive activity.

The vertical loop survey plus geochemical surveys should be continued north-eastward along the conductor strike.

An exploratory trench should be dug across the conductor at Line 1+00 E.

-1-

#### INTRODUCTION

The Bine Group of claims are situated approximately 1 km south of the South Salmo River, and approximately 2 km southeast of the Nelway junction of the Salmo-Creston Highway.

A road to Rosebud Lake provides access to the claims.

The claims are situated on moderately sloping to steep ground.

Only small areas of outcrop exposure were observed during the surveys. Small, isolated patches of glacial outwash are prevalent throughout the claims. Cover is thin in most areas.

Claims in the Bine Group are owned by W. Arthur Hall of Calgary, Alberta and E.R. Rockel of Richmond, B.C.

The operator of the 1983 program was Interpretex Resources Ltd., of Calgary, Alberta and Vancouver, B.C., a firm specializing in geophysical and geological consulting and contracting for mineral exploration.

The Bine claim group was acquired to cover a possible projection on strike of occurrences on the Lone Silver claims to the south.

A location/index map is included in this report as Figure #1.



# 3. MINERAL CLAIMS

Claim	Record Number	Month of Record	Owner
Bine #1	2467	Sept.	E.R. Rockel
Bine #2	2468	Sept.	E.R. Rockel
Bine #3	2469	Sept.	E.R. Rockel
Bine #4	2470	Sept.	E.R. Rockel
Bine #5	2471	Sept.	E.R. Rockel
Bine #6	2472	Sept.	E.R. Rockel
Bine #7	2473	Sept.	E.R. Rockel
Bine #8	2474	Sept.	E.R. Rockel
Bine #9	2475	Sept.	W.A. Hall
Bine #10	2476	Sept.	W.A. Hall
Bine #11	3308	July	E.R. Rockel
Bine #12	3309	July	E.R. Rockel

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### GEOLOGY AND MINERALIZATION

Although no geological evidence of economic mineralization has been found to date, it is expected that Ag, Pb, Zn mineralization may occur in relation to mineral occurrences to the south.

The writer found shattered shale impregnated with quartz veins in situ within the present detail survey grid. This suggests that quartz stockwork type mineralization may be prevalent in the area.

-4-

### SURVEY SPECIFICATIONS

### 5.1 Survey Parameters

Line location was carried out using a compass and hip-chain. Lines were brushed out using a brush-axe.

A baseline 150 meters long and oriented Az. 060° was located and flagged every 25 meters. Four perpendicular survey lines were established at 0+00, 0+50 E, 1+00 E and 1+50 E on the baseline. Survey stations were flagged at 25 meter intervals along the survey lines north and south of the baseline.

The following detail coverage was obtained during the survey:

Vertical loop electromagnetic survey	-	700	meters
Total field magnetometer survey	-	875	meters
Total Coverage		1575	meters

### 5.2 Equipment Parameters

VHEM Electromagnetic Unit

- (i) Measures dip angle of resultant electromagnetic field
- (ii) Measures In-phase and Out-of-phase components of secondary field (not used here)
- (iii) Operates at two frequencies 600 Hz and 2400 Hz.

G-816 Total Field Magnetometer

- (i) Measures total magnetic field
- (ii) Magnetic variations controlled using "tie-back" method and linear diurnal curves
- (iii) instrument accuracy ± 1 gamma
- (iv) station repeatability ± 3 gammas

-5-

### 6. DATA

### 6.1 Calculations

No corrections were made to Vertical Loop E.M. data. Estimates of dip, depth and depth extent were made by comparing with theoretical type curves and published case histories.

During the magnetic survey the tie-back method was used to control magnetic variations. The data was corrected for diurnal variations of the earth's magnetic field using linear drift curves.

### 6.2 Presentation

A location map, Figure #1, shows the location of the BINE Claim group with respect to local topographic features.

Electromagnetic data are presented in profile form at a scale of 1:2000 on plan map Figure #2. Magnetic data are presented as contours of posted corrected total field values on Figure #3. Both Figures 2 and 3 show claim boundaries.

### INTERPRETATION

### 7.1 Discussion of Results

Vertical loop electromagnetic readings were made difficult by noise from high voltage power lines to the southwest of the survey grid. Some readings were questionable and some readings were impossible due to this noise. No further coverage to the southwest is practical using the vertical loop method.

Electromagnetic survey results show a strong conductive feature trending approximately Az. 060°. The conductor is believed to be narrow and dipping of the order of 60° to the North. Depth extent is estimated to be greater than 125 meters. Conductance of the body is believed to be moderate to high.

Profile character north of the conductor axis suggests another conductive feature about 50 to 75 meters north of the baseline.

Magnetic survey results do not show a direct relationship between conductivity and magnetism. The limited amount of data obtained in this survey do, however, indicate a more active magnetic environment north of the conductor axis.

-7-

### 7.2 Conclusions

A change in magnetic activity bounded approximately by the vertical loop conductor described in 7.1 suggests that the conductor may represent conductive mineralization associated with a geological contact. The presence of quartz within fractured shale further suggests that the conductor may be associated with intrusive activity and that the magnetic material may be related to intrusive rock.

The suggestion by the writer in "Reconnaissance Geophysical and Geochemical Surveys, BINE #1-10 Claims (BINE Group)" November, 1982 that some sort of cross faulting may be present in the area plus the observation of "quartz stockwork" type fracture filling in the shales, seem to suggest the potential for structural traps and a source of mineralized fluids. These detail geophysical surveys have thus provided encouragement for additional exploration in this region of the BINE claim group.

### 8. RECOMMENDATIONS

- (i) The vertical loop EM and total field magnetic surveys should be continued northeastward along the strike of the conductor found by the present survey.
- (ii) A geochemical survey should be carried out on the present grid and also extended along with the geophysical coverage.
- (iii) A trench should be dug across the conductor at Line 1+00 E to check rock type, to determine if the conductor may represent a contact and to find out if economic minerals are associated with the conductor.

Respectfully Submitted INTERPRETEX RESOURCES LTD.

EDWIN R. ROCKEL, B.Sc., P.Seoph.

Consulting Geophysicist

THE ASSOCIATION OF PROFESSIONAL ENGINEERS. GEOLOGISTS and GEOPHYSICISTS OF ALBERTA PERMIT NUMBER P 3100 INTERPRETEX RESOURCES LTD.

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### REFERENCES

- Rockel, E.R., 1982. <u>Reconnaissance Geophysical and</u> <u>Geochemical Surveys, BINE #1-10 Claims</u> South Salmo River Area, Near Nelway, B.C.
- Telford, W.M. et al, 1981. <u>Applied Geophysics</u>, Cambridge University Press.

#### CERTIFICATE

I. Edwin R. Rockel, hereby certify that:

- I am a Consulting Geophysicist and owner of Interpretex Resources Ltd. of Box 48239 Bentall P.O., in the city of Vancouver, in the Province of British Columbia.
- I currently reside at 6571 Cooney Road, in the city of Richmond, in the Province of British Columbia.
- I obtained a Bachelor of Science degree in Geophysics and Geology in 1966 from the University of British Columbia.
- I have been practicing my profession as an Exploration Geophysicist since 1967.
- I am a Professional Geophysicist registered in the Province of Alberta.

Oct. 20/83

Date

Edwin R. Rockel, B.Sc., P.Geoph. Interpretex Resources Ltd.

# APPENDIX I

# GEOPHYSICAL DATA SHEETS

STATION	FR	Q	H	IGH REQ.	1	FIELD	REMARKS (TERRAIN)	
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505	-10	57774	A A A A A A A A A A A A A A A A A A A	50N	-8	57722
755	-9	57782		75N	-9	57751
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INSTRUMENT SPECIFICATIONS

APPENDIX II

1

#### MODEL G-816

#### PORTABLE PROTON MAGNETOMETER

Sensitivity:

Range:

Tuning:

Gradient Tolerance:

Sampling Rate:

Output:

Power Requirements:

Temperature Range:

Accuracy (Total Field): Sensor:

Size:

Weight:

±1 gamma throughout range

20,000 to 90,000 gammas (worldwide)

Multi-position switch with signal amplitude indicator light on display

Exceeds 800 gammas/ft

Manual pushbutton, one reading each 6 seconds

5 digit numeric display with readout directly in gammas

Twelve self-contained 1.5 volt "D" cell universally available flashlight-type batteries. Charge state or replacement signified by flashing indicator light on display.

Console and sensor: -40° to +85°c

Battery pack: 0° to +50°C (limited use to -15°C; lower temperature battery belt operation optional)

±1 gamma through 0° to ±50°C temperature range

High signal, noise cancelling, interchangeably mounted on separate staff or attached to back pack

Console: 3.5 x 7 x 11 inches (9 x 18 x 28 cm) Sensor: 3.5 x 5 inches (9 x 13 cm) Staff: 1 inch diameter x 8 ft. length (3 cm x 2.5 m)

Console (w/batteries):5.51bs.2.8kgs.Sensor and signal cable:4.01bs.1.8kgs.Aluminum staff:2.01bs.0.9kgs.Total Weight11.51bs.5.2kgs.

# APPENDIX III

# STATEMENT OF EXPENDITURES

## Statement of Expenditures

### Labour Costs (Field)

Geophysicist (E.R. Rockel) 3 days @ \$275.00 per day	\$825.00
Junior Geophysicist (H.M. Rockel) 3 days @ \$100.00 per day	300.00

### Labour Costs (Office)

Geophysicist (E.R. Rockel)	
2 3/4 days (Report and Drafting)	
@ \$275.00 per day	756.25

### Other Costs

Mobilization/Demobilization/Vehicl	es ·	180.50
Food/Lodging/Field Support/Travel		188.75
Instrument Rental		141.00
Reproduction/Report/Materials/Maps		20.00
	TOTAL	\$2411.50

### Dates

Sept. 23 (½ day), 24, 25, 26 (½ day) - Grid location and geophysical survey

3.4 ....

Oct. 14, 15, 16 (3/4 day) - Report and Drafting



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	CLAIM POST	
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